Amendments to the Specification:

Please replace the title with the following:

LOW VOLUME ELECTROCHEMICAL BIOSENSOR

Please replace the paragraph beginning at page 6, line 23 with the following amended paragraph:

FIG. 2A is a side view in elevation of the biosensor of FIG. 1.

Please add the following new paragraph after the paragraph beginning at page 6, line 23:

FIG. 2B is a cross-sectional view taken along line 2B-2B of FIG. 1.

Please add the following new paragraphs after the paragraph ending at page 6, line 34:

FIG. 7 is an exploded perspective view of another embodiment of this invention. FIG. 7 shows a working electrode, a counter electrode, a reference electrode that is distinct from the counter electrode, and a trigger electrode disposed on one substrate.

FIG. 8 is an exploded perspective view of another embodiment of this invention. FIG. 8 shows a layer of mesh disposed between two substrates and in the vicinity of the electrodes.

Please replace the paragraph beginning at page 7, line 1 with the following amended paragraph:

FIG. ~~7~~ 9 is a graph showing the current response of biosensors as a function of concentration of glucose in blood.

Please replace the paragraph beginning at page 9, line 1 with the following amended paragraph:

Biosensor strips suitable for this invention are illustrated in FIGS. 1-6. Referring to FIGS. 1-3, a biosensor strip 10 comprises an electrode support 12, which is preferably an elongated strip of polymeric material (e.g., polyvinyl chloride, polycarbonate, polyester, or the like) supports two conductive tracks 14a, 14b, preferably formed from electrically conductive ink, preferably comprising carbon. These tracks 14a, 14b determine the positions of electrical contacts 16a, 16b, a dual-purpose reference/counter electrode 18 and a working electrode 20. The electrical contacts 16a, 16b can be inserted into an appropriate measurement device (not shown) for measurement of current. A layer containing reagent(s) is designated by reference numeral 22. If the working electrode 20 is lacking a reagent(s) required for a given assay, the reagent(s) can be supplied to the biosensor by means of the layer 22. If the working electrode 20 contains all of the reagents needed to carry out the assay, the layer 22 can be deleted. A layer of an electrically insulating material 26, preferably a hydrophobic electrically insulating material, further overlies the tracks 14a, 14b. The positions of the electrical contacts 16a, 16b are not covered by the layer of electrically insulating material 26. This layer of electrically insulating material 26 serves to prevent short circuits. When this insulating material is hydrophobic, it can cause a hydrophilic liquid sample to be restricted to the exposed electrodes. A preferred insulating material is commercially available as "POLYPLAST" (Sericol Ltd., Broadstairs, Kent, UK). The layer of insulating material 26 has a layer of adhesive material 27 to adhere a layer of tape 28 to the layer of insulating material 26. The layer of tape 28 and the layer of adhesive 27 are optional. The biosensor strip 10 also has a flow channel 30, into which the liquid sample flows by means of capillary attraction. Capillary attraction results because the layer 22 is thinner than the flow channel 30, A small aperture 32 is present in the layer 28 to

function as a vent to allow the liquid sample to flow easily from the sample application zone to the electrodes.

Please replace the paragraph beginning at page 10, line 26 with the following amended paragraph:

In an alternative embodiment ~~(not shown)~~ , as shown in FIG. 7 , the dual-purpose reference/ counter electrode in the biosensor strip can be replaced by two electrodes - a reference electrode 34 and a counter electrode 36. Biosensors containing a working electrode 38, a reference electrode 34, and a counter electrode 36 separate from a reference electrode are shown in U. S. Publication Number US-2003-0146110-A1, published August 7, 2003, incorporated herein by reference. This alternative embodiment can further include a fourth electrode 40 to act as a trigger electrode to initiate the assay sequence. In the absence of the optional trigger electrode 40, the counter electrode 36 can be positioned downstream of the working electrode 38 so as to act as a trigger electrode to initiate the assay sequence. As in the embodiment shown in FIG. 1, each of the electrodes 34, 36, 38, and 40 is also associated with a conductive track and an electrical contact. For the reference electrode 34, the conductive track has the reference numeral 14c and the electrical contact has the reference numeral 16c. For the counter electrode 36, the conductive track has the reference numeral 14d and the electrical contact has the reference numeral 16d. For the working electrode 38, the conductive track has the reference numeral 14e and the electrical contact has the reference numeral 16e. For the trigger electrode 40, the conductive track has the reference numeral 14f and the electrical contact has the reference numeral 16f. In this embodiment, the components other than the electrodes have the same reference numerals as the components in FIG. 1.

Please replace the paragraph beginning at page 11, line 7 with the following amended paragraph:

Optionally, in either embodiment, at least one layer of mesh and at least a second insulating layer can be placed proximate to the reagent layer 22, 22' to allow the liquid sample to fill the sample application zone by chemically-aided wicking. The layer of mesh can be held in position with the aid of an insulating layer ("POLYPLAST") or an adhesive layer. If an adhesive layer is used, the adhesive can serve the dual-purpose of holding the layer of tape in position. In the arrangement where the electrodes are disposed face-to-face, as shown in FIG. 8, the layer of mesh 40' can be placed between the two substrates 12a' and 12b' in the vicinity of the electrodes 18' and 20'. Any additional insulating layers include openings formed therein to allow access of the applied sample to the underlying layers of mesh. In the embodiment shown in FIG. 8, the components other than the layer of mesh 40' have the same reference numerals as the components in FIG. 4.

Please replace the paragraph beginning at page 25, line 27 with the following amended paragraph:

In a preferred embodiment, the biosensor is inserted into a device for measuring the current generated by the reaction between the analyte in the liquid sample and the reagents in the biosensor or some other useful electrical characteristic of the reaction. Then the sample application zone of the biosensor can be filled with a liquid sample by any of numerous methods. Filling can be carried out by, for example, capillary attraction, chemically-aided wicking, or vacuum. One of ordinary skill in the art can specify the type of aperture preferred for introducing the liquid sample into the sample application zone so that the sample can wet the electrodes of the biosensor. Then the current or other electrical characteristic can be measured, and, preferably recorded. FIG. ~~7~~ 9 is a graph showing the current response of biosensors as a function of concentration of glucose in blood. In the legend of the graph, 1,10-PQ represents 1,10-phenanthroline quinone; 4,7-PQ represents 4,7-phenanthroline quinone; 1,10-PQ/FE/PF6 represents an iron complex of 1,10-phenanthroline quinone; 1,10-PQ/Mn/Cl represents a manganese complex of 1,10-phenanthroline quinone.